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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,691	11/09/2001	Il-hyun Ryu	Q66334	5783

7590 02/18/2005  
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EXAMINER

NATNAEL, PAULO S M

ART UNIT PAPER NUMBER

2614

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/986,691

Applicant(s)

RYU, IL-HYUN

Examiner

Paulos M. Natnael

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7 and 8 is/are rejected.
- 7) ☒ Claim(s) 6 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____: |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/20/02</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims **1-5,7-8** are rejected under 35 U.S.C. 102(e) as being anticipated by Kawashima et al., U.S. Pat. No. 6,333,768.

Considering claim 1, Kawashima et al. disclose all claimed subject matter, note;

- a) sensing means provided at a predetermined position on the screen of the television for measuring a quantity of light sensed through scanning of a predetermined video pattern, is met by sensors 64,66,68,70, fig.8;
- b) pattern generating means for generating a block pattern for scanning surroundings of the sensing means to determine a portion where the sensing means is positioned and the video pattern for convergence control, is met by pattern generator 101, fig.8;
- c) convergence control means for controlling the convergence by controlling the scanning of the video pattern based on information on the position of the sensing

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means, the information being detected using the block pattern generated by the pattern generation means, is met by controller 76, fig.8; (see col. 6, line 65 to col. 7, line 20)

Considering claim 2, the apparatus of claim 1, wherein the convergence control means recognizes the position of the sensing means, which is detected using the block pattern, as the center point of the screen and controls the scanning of the video pattern on the basis of the position, is met by the controller 76, fig.8; (see col. 1, lines 65 thru col. 2, line 8; also Figs. 4);

Considering claim 3, the method of controlling convergence in a television, comprising the steps of: (a) determining a position of a sensor, which is provided at a predetermined location on the screen of the television, through the scanning of a predetermined block pattern; and (b) controlling the scanning of a predetermined video pattern based on sensor position information which is obtained in the step (a) to control the convergence of the television, **is met by** the disclosure that "The amount of beam misalignment at a position defined by a given sensor is determined by observing that sensor's readings when exposed to the wide and narrow patterns. The observed readings are used to form a ratio which is then compared to a desired ratio, the desired ratio being the ratio obtained for the sensor under no misalignment conditions. The difference between the measured ratio and the desired ratio indicates the amount of beam misalignment.

Described below is an illustrative misalignment determination as performed by

sensor 28." (col. 2, lines 30-39)

Considering claim 4, see rejection of claim 2;

Considering claim 5, an apparatus for controlling convergence in a television, comprising: a pattern generator for generating a first predetermined pattern and a second predetermined pattern on a screen; a sensor provided at a location on the screen for sensing a quantity of light caused by the first predetermined pattern and the second predetermined pattern and for outputting a signal corresponding to the quantity of light sensed; and a convergence controller for receiving the signal output by the sensor, wherein said pattern generator scans the first predetermined pattern in an area around said sensor, and said convergence controller determines location information of the sensor based on the signal output by the sensor when said pattern generator scans the first predetermined pattern, controls scanning of the second predetermined pattern based on the location information, and controls convergence based on the scanning of the second predetermined pattern.

See rejection of claim 1;

Considering claim 7, the apparatus of claim 5, wherein the first predetermined pattern is a block pattern and the second predetermined pattern is a line pattern.

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Considering claim 8, a method of controlling convergence in a television, comprising steps of: generating a first predetermined pattern and a second predetermined pattern on a screen; using a sensor provided at a location on the screen to sense a quantity of light caused by the first predetermined pattern and the second predetermined pattern and outputting a signal corresponding to the quantity of light sensed; receiving the signal output by the sensor; scanning the first predetermined pattern in an area around the sensor; determining location information of the sensor based on the signal output by the sensor when scanning the first predetermined pattern; controlling scanning of the second predetermined pattern based on the location information; and controlling convergence based on the scanning of the second predetermined pattern.

Regarding claim 8, claim 8 is a method claim of claim 1 and thus, claim 8 is rejected for the same reasons as in claim 1;

***Allowable Subject Matter***

3. Claims 6,9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose an apparatus, wherein the convergence controller uses the location information to recognize the location of the sensor as a center point of the screen and determines an amount of deviation from convergence with respect to the

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center point of the screen *and outputs a convergence compensation signal based on the amount of deviation, as in claim 6; a method*, wherein the controlling convergence step comprises: using the location information to recognize the location of the sensor as a center point of the screen; determining an amount of deviation from convergence with respect to the center point of the screen; and outputting a convergence compensation signal based on the amount of deviation, as in claim 9.

### ***Conclusion***

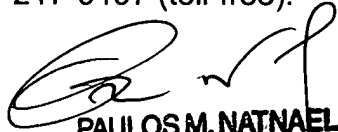
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**PAULOS M. NATNAEL**  
**PATENT EXAMINER**

PMN

November 4, 2004